

IN THE CLAIMS:

1. (Currently Amended) An isolated nucleic acid molecule ~~comprising nucleotide sequences, which encodes~~ encoding a fluorescent protein, wherein said protein has ~~having~~ at least 85% identity with full length ~~an amino acid sequence selected from the group consisting of~~ SEQ ID NO: ~~NOs: 2, 4, 6, 10, 12, 14, 16, 18, 20, and 22.~~

2-4 (cancelled)

5. (original) A vector comprising the nucleic acid molecule according to claim 1.

6. (Currently Amended) An expression cassette comprising

- (a) a transcriptional initiation region that is functional in an expression host;
- (b) the nucleic acid molecule according to claim 1; and
- (c) ~~and~~ a transcriptional termination region functional in said expression host.

7. (Previously Presented) A host cell or progeny thereof, comprising the expression cassette according to claim 6 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

8. (Previously Presented) A transgenic cell, or progeny thereof, comprising the nucleic acid molecule according to claim 1.

9. (withdrawn) A transgenic plant comprising the nucleic acid molecule according to claim 1.

10. (withdrawn) A transgenic animal comprising the nucleic acid molecule according to claim 1.

11. (withdrawn) A method for producing a fluorescent protein, said method comprising

- (a) providing an expression cassette according to claim 6
- (b) expressing the fluorescent protein from the nucleic acid molecule, and
- (c) isolating the protein substantially free of other proteins.

12. (cancelled)

13. (Currently Amended) A nucleic acid molecule having a sequence that is substantially the same as, or identical to a nucleotide sequence of at least 300 ~~residues~~ nucleotides in length of the nucleic acid molecule according to claim 1.

14. (withdrawn) An isolated fluorescent protein that is encoded by the nucleic acid molecule according to claim 1.

15. (withdrawn) A fusion protein comprising the protein according to claim 14.

16. (withdrawn) An antibody specifically binding to the protein according to claim 14.

17. (Previously Presented) A kit comprising at least one nucleic acid molecule according to claim 1.

18 to 26. (cancelled)

27. (Previously Presented) The nucleic acid molecule according to the claim 1 which encodes a fluorescent protein which has at least 85% identity with the amino acid sequence of SEQ ID NO: 10.

28. (Currently Amended) The nucleic acid molecule according to the claim 1 which encodes ~~a fluorescent protein selected from the group consisting of~~ SEQ ID ~~NO:~~ NOs: 2, 4, 6, 10, 18, 20.

29. (Currently Amended) ~~[[A]]~~ An isolated nucleic acid that hybridizes under stringent conditions to the nucleic acid of claim ~~26~~ 1, wherein said nucleic acid encodes a fluorescent protein.

30. (Currently Amended) The nucleic acid molecule according to ~~the~~ claim 1, having a nucleotide sequence comprising which is selected from the group consisting of SEQ ID ~~NO: NOs: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, and 21.~~

Please add the following new claim:

31. (New) The nucleic acid molecule according to Claim 1, wherein said nucleic acid molecule encodes a fluorescent protein having at least 90% identity with SEQ ID NO: 10.

32. New) The nucleic acid molecule according to Claim 1, having a nucleotide sequence having at least 90% identity with SEQ ID NO:9.

33. (New) The nucleic acid molecule according to Claim 1, wherein the protein comprises a fluorophore.